

NOTES ON ROCKY MOUNTAIN CARICES

F. J. HERMANN

In the preparation of a *Manual of the Carices of the Rocky Mountains and Colorado Basin* (to be published in the Agriculture Handbook series of the U. S. Department of Agriculture) the need for a change in status for several taxa and for proposing two new varieties became apparent. These are as follows:

Carex foenea Willd. var. **tuberculata** F. J. Herm., var. nov.

A varietate typica recedit perigyniis ventraliter tuberculatis.

This variety differs strikingly from the typical form of the species in having the perigynia ventrally granular-tuberculate, much as in *C. potosina* Hemsl. of Mexico. It is a variable characteristic in the present taxon, being sometimes very prominent but in other collections barely perceptible. Since it appears to be geographically segregated, apparently never occurring in eastern United States where the species is not uncommon from Maine to New Jersey, varietal status seems most appropriate for it.

SPECIMENS EXAMINED: WASHINGTON: Mission Peak headwaters, alt. 6000 ft., Wenatchee National Forest, Chelan County, G. Garrison, D. Wooldridge & R. Gibbons 80-56, July 24, 1956 (TYPE — US; isotype — USFS); COLORADO: Rio Grande National Forest, alt. 10,800 ft., D. C. La Font 18, (USFS); north shore of Trappers' Lake, Garfield County, alt. 9500 ft., F. J. Hermann 5433, (US); NEW MEXICO: West Fork of Tusas River, Carson National Forest, alt. 9500 ft., R. F. Copple 240, (USFS); ALBERTA: in sand under Jack pines, 15 mi. N. of Fort Saskatchewan, G. H. Turner, July 2, 1937 (US).

Carex vallicola var. **rusbyi** (Mack.) F. J. Herm., comb. nov.

C. rusbyi Mack., *Smithson. Misc. Coll.* 657: 2. 1915.

Intermediates between this plant of the mountains of Arizona and New Mexico and the more wide-ranging *C. vallicola* are too frequent to warrant its retention in specific rank.

Carex microptera Mack., var. **crassinervia** F. J. Herm., var. nov.

A forma typica differt perigyniis ventraliter valde 5-7-nerviis.

In typical *C. microptera* the perigynia are lightly few-nerved ventrally, the nerves often being evident only at the base. The present plant is in striking contrast to this with its very stout 5-7 ventral nerves.

SPECIMENS EXAMINED: COLORADO: open parks, basin below Engineer Pass, alt. 11,000 ft., Ouray County, Colorado, *W. M. Johnson 594*, Aug. 14, 1967 (TYPE — US); Wyoming: moist meadow (Bear-trap Meadows) at edge of forest, west of Circle Drive road, summit of Casper Mountain, alt. 7900 ft., Natrona County, *F. X. Jozwik 262* (USFS).

Carex luzulina Olney var. **ablata** (Bailey) F. J. Herm., comb. nov.

C. ablata Bailey, Bot. Gaz. 13: 82. 1888, not Boott *apud* Miq. 1867.

The great frequency of transitional forms between this and typical *C. luzulina* make it impractical to attempt to maintain it in specific rank as was done by Mackenzie.

Carex parryana Dewey, var. **brevisquama** F. J. Herm., var. nov.

"*C. aboriginum* M. E. Jones", Mack., N. Am. Fl. 18: 364. 1935, not M. E. Jones, 1910.

A varietate typica recedit spica terminali staminata, spicis femineis 4-5 mm. latis, squamis femineis perigyniis conspicue brevioribus, perigyniis 2.75-3.5 mm. longis, 1.75-2.5 mm. latis.

Dr. Arthur Cronquist, in his studies of the flora of the Great Basin, first noted the discrepancy between Mackenzie's "*Carex aboriginum*" and Jones' type of that species, which is still the only collection known, and called it to the attention of the writer. Mackenzie's concept may be separated from typical *C. parryana* by the following key:

Terminal spike usually gynaeandrous; pistillate spikes 2-3 mm. wide; pistillate scales mostly equaling to exceeding and concealing the perigynia; perigynia 1-1.5 mm. wide, 2-2.5 mm. long
 *C. parryana*

Terminal spike staminate; pistillate spikes 4-5 mm. wide; pistillate scales 1/2-2/3 the length of the perigynia; perigynia 1.75-2.5 mm. wide, 2.75-3.5 mm. long *C. parryana* var. *brevisquama*

Carex heteroneura W. Boott var. **epapillosa** (Mack.) F. J. Herm., comb. nov.

C. epapillosa Mack. in Rydb., Fl. Rocky Mts. 138. 1917.

This and the following two sedges are amply distinct from *C. heteroneura* in their extreme forms, but intergrading forms between all four taxa occur with such frequency that attempts to maintain them in specific rank have been impractical.

Carex heteroneura var. **chalciolepis** (Holm) F. J. Herm., comb. nov.

C. chalciolepis Holm, Am. Jour. Sci. IV. 16: 28. 1903.

Carex heteroneura var. **brevisquama** F. J. Herm., var. nov.

C. atrata auct. Amer. (including Mackenzie, N. Am. Fl. 18: 371. 1935), not L., Sp. Pl. 976. 1753.

True *Carex atrata* L. is Eurasian and is not known to occur in America. It belongs to the group in Section *Atratae* having subinflated, scarcely flattened perigynia. The American plant that has been passing as *C. atrata*, although it often merges more or less into *C. heteroneura* and the above two varieties, is sufficiently different from all of these in its typical form to merit varietal recognition.

FOREST SERVICE HERBARIUM
 RANGE AND WILDLIFE HABITAT RESEARCH
 U. S. DEPARTMENT OF AGRICULTURE
 WASHINGTON, D. C.